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EXAMINER

WANG, DAVID

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/760,322	Applicant(s) KUBLER ET AL.	
	Examiner DAVID WANG	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-76 is/are pending in the application.
- 4a) Of the above claim(s) 1-21, 40, 69 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-39, 41-68, 70-76 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>17 July 2008</u> | 6) <input type="checkbox"/> Other: _____ |

FINAL REJECTION

Response to Amendment

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claim 22-24, 26, 30, 45, 49, 54-56, and 59 rejected under 35 U.S.C. 103(a) as being unpatentable over Bertland (US 5,596,573) in view of Iwami et al. (US 5,604,737) and further in view of Kudo et al. (US 5,148,429).

4. Re claim 22, claim 45, and claim 54, Bertland teaches:

At least one converter for converting a first voice stream into outgoing digital voice data (A/D converter 21, Bertland Fig. 2);

At least one processor for processing outgoing digital voice data to produce packets for transmission via the wireless packet network (packetizer 23, Bertland Fig. 2);

A radio transmitter for transmitting the packets for transmission via the wireless packet network (transmitter 24, Bertland Fig. 2);

A radio receiver for receiving packets via the wireless packet network (receiving messages in two-way communication, c4 37-48);

The at least one processor for selectively processing the packets received via the wireless packet network to produce incoming digital voice data (combiner 28, Bertland Fig. 2); and

The at least one converter for converting the incoming digital voice data to produce a second voice stream (D/A converter 26, Bertland Fig. 2)

However, Bertland may not adequately teach concurrent, bi-directional voice communications. Instead, Iwami teaches this limitation:

wherein the phone supports concurrent, bidirectional voice communication (communication under progress 457, Iwami et al. Fig. 11).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made for a phone to support concurrent, bidirectional voice communications in a voice communication system which is connected to a LAN (Iwami et al. abstract).

The prior art does not specifically teach a processor for monitoring lack of speech for a minimum period of time. Nevertheless, Kudo teaches this limitation:

Wherein the at least one processor monitors the first voice stream for a lack of speech (voice/silence detector, Kudo et al. c4 21-36) for a minimum period of time (predetermined time of silence, Kudo et al. c4 21-36).

Ergo, it would have been obvious to a person having ordinary skill in the art at the time the invention was made for a phone to detect voice/silence in order to provide a voice data transmission system (Kudo et al. c3 66-2).

5. Re claim 23 (from claim 22), claim 49 (from claim 45), and claim 55 (from claim 54), Bertland further teaches:

At least one interface for accepting input from a user (address input 3, Bertland Fig. 1); and

The at least one interface for providing feedback to a user (speaker 10, Bertland Fig. 1).

6. Re claim 24 (from claim 23), Bertland further teaches that the interface comprises a keypad (key set, Bertland c3 30-36).

7. Re claim 26 (from claim 22) and claim 56 (from claim 54), Bertland further teaches:

a handset having a microphone for transducing sound into the first voice stream, and (microphone 2, Bertland Fig. 1)

a transducer for converting the second voice stream into sound (speaker 10, Bertland Fig. 1)

8. Re claim 30 (from claim 22) and claim 59 (from claim 54), Bertland further teaches that the phone transmits and receives packets comprising digital data not related to the establishment or receipt of a voice call (packet-switched digitized voice message, Bertland c1 55-12).

9. Re claim 74 (from claim 22), claim 75 (from claim 45), claim 76 (from claim 54), Iwami further teaches that the phone does not receive dedicated bandwidth on the wireless packet network for exchange of packets containing digital voice data (voice communication over a packet switching network, Iwami et al. c1 61-2).

10. Claims 25, 31-32, 36, 47-48, 50, 60-61, and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bertland (US 5,596,573) in view of Iwami et al. (US 5,604,737) and further in view of Kudo et al. (US 5,148,429) and Dinkins (US 5,678,172).

11. Re claim 25 (from claim 23), Bertland teaches pager systems (Mobitex, Bertland c1 25-36), which include a display, but Bertland does not particularly state a display interface. However, Dinkins teaches that interface comprises a display (display 302, Dinkins Fig. 18A). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to include a display interface in a mobile device to increase the “interactivity” of a voice packet messaging system (Dinkins c4 37-44).

12. Re claim 31 (from claim 22), claim 47 (from claim 45), and claim 60 (from claim 54), Dinkins further teaches that the the wireless packet network communicates using an Internet protocol (IP) (Dinkins c9 4-16).

13. Re claim 32 (from claim 31), claim 48 (from claim 47), and claim 61 (from claim 54), Dinkins further teaches that the Internet protocol is the transmission control protocol (TCP/Internet protocol (IP) (Dinkins c9 17-36).

14. Re claim 36 (from claim 22), claim 50 (from claim 45), and claim 65 (from claim 54), Dinkins further teaches an interface for receiving information representing an image for transmission via the wireless packet network (digital display means, Dinkins c13 19-39).

15. Claims 27-29, 34-35, 57-58, and 63-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bertland (US 5,596,573) in view of Iwami et al. (US 5,604,737) and further in view of Kudo et al. (US 5,148,429) and Averbuch (US 5,268,933).

16. Re claim 27 (from claim 22) and claim 57 (from claim 54), Bertland teaches combining packets after transfer (Bertland c4 21-30), thus implying a buffer. Bertland, though, does not specifically state a buffer. Nevertheless, Averbuch teaches that a processor buffers incoming digital voice data for an adjustable amount of time to avoid the occurrence of a gap in the second voice stream (frame buffer 323, Averbuch Fig. 4). Ergo, it would have been obvious to a person having ordinary skill in the art at the time

the invention was made to buffer voice data in order to facilitate synchronized transmission (Averbuch c3 50-55).

17. Re claim 28 (from claim 27) and claim 58 (from claim 54), Averbuch further teaches that the adjustable amount of time is based upon a propagation delay (delay due to length of the link, Averbuch c5 43-2).

18. Re claim 29 (from claim 27), Averbuch further teaches that the adjustable amount of time is based upon a test packet (time stamped pointers to test delay, Averbuch c6 36-54).

19. Re claim 34 (from claim 22) and claim 63 (from claim 54), Averbuch further teaches that the wireless packet network communicates using a direct sequence spread spectrum technique (direct sequence, Averbuch c1 40-44).

20. Re claim 35 (from claim 22) and claim 64 (from claim 54), Averbuch further teaches that the wireless packet network communicates using a frequency hopping spread spectrum technique (hopping, Averbuch c1 45-53).

21. Claim 33, 46, and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bertland (US 5,596,573) in view of Iwami et al. (US 5,604,737) and further in view of Kudo et al. (US 5,148,429) and Smith et al. (US 5,796,772).

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22. Re claim 33 (from claim 22), claim 46 (from claim 45), and claim 62 (from claim 54), Bertland teaches a wireless packet network (packet-switched narrow band radio network, Bertland abstract), but Bertland does not particularly teach that the network communicates on a frequency of 2.4 GHz. Smith, on the other hand, teaches that the wireless packet network communicates at a frequency of approximately 2.4 gigahertz (Smith et al. abstract). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to communicate at 2.4 GHz in order to carry digital voice (Smith et al. c1 61-4).

23. Claims 37-39, 51-53, and 66-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bertland (US 5,596,573) in view of Iwami et al. (US 5,604,737) and further in view of Kudo et al. (US 5,148,429) and Stein (US 5,628,055).

24. Re claim 37 (from claim 22), claim 51 (from claim 45), and claim 66 (from claim 54), Bertland does not teach a removable circuit card. Despite this omission, Stein teaches a circuit card interface for accepting a removable circuit card (Stein Fig. 12). Therefore, it would have been obvious for a mobile device to accept a removable circuit card in order to transmit and receive on a digital cellular radio network (Stein c1 46-9).

25. Re claim 38 (from claim 37), claim 52 (from claim 51), and claim 67 (from claim 66), Stein further teaches that the removable circuit card comprises a wired network interface card (modem for standard telecommunication network lines, Stein c2 10-17).

26. Re claim 39 (from claim 37), claim 53 (from claim 51), and claim 68 (from claim 66), Stein further teaches that the removable circuit card interface is compatible with the Personal Computer Memory Card Interface Association (PCMCIA) standard (Stein c1 25-45).

27. Claims 40-44 and 69-73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bertland (US 5,596,573) in view of Iwami et al. (US 5,604,737) and further in view of Kudo et al. (US 5,148,429).

28. Re claim 41 (from claim 22) and claim 70 (from claim 54), Kudo further teaches that the minimum period of time is 40 ms or more, thus constituting approximately 200 milliseconds (Kudo et al. c3 1-4).

29. Re claim 42 (from claim 22), Kudo further teaches that the transmission of packets containing digital voice data is interrupted when a lack of speech for the minimum period of time is detected (absence of packets denoting silence, Kudo et al. Fig. 5F)

30. Re claim 43 (from claim 42) and claim 72 (from claim 54), Kudo further teaches that an indication of a change in speech activity is transmitted following the detection of a lack of speech for the minimum period of time (head part packet preceding voice packets, Kudo et al. Fig. 10C).

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31. Re claim 44 (from claim 43) and claim 73 (from claim 72), Kudo further teaches that the indication is a group identifier (head part packet signifying the beginning of a voice packet group, Kudo et al. Fig. 10C).

32. Re claim 71 (from claim 54), Kudo further teaches:

Interrupting transmission of packets containing digital voice data when a lack of speech for the minimum period of time is detected (absence of packet denoting silence, Kudo et al. Fig. 5F); and

Refraining from interrupting transmission of packets containing digital voice data when a lack of speech for the minimum period of time is not detected (transmitted packets denoting digital voice data, Kudo et al. Fig. 5F).

Response to Arguments

33. Applicant's arguments with respect to claims 22, 45, 54 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

34. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID WANG whose telephone number is (571)270-1214. The examiner can normally be reached on M - F 10 AM - 4 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on 571.272.7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

David Wang
4 August 2008

/Duc Nguyen/
Supervisory Patent Examiner, Art Unit 2617